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ABSTRACT

Graduates of University of Massachusetts School of Education (1976) were asked in a survey to rate the quality and relevance of their undergraduate experience. Included in the survey were questions pertaining to their student teaching experience, development of professional skills and personal awareness, and theory and methods coursework. They were also asked about their experience in the job market and their present employment and salary. Tables present the results of this survey, comparing results with those of surveys conducted in previous similar surveys. The questionnaire used in this study is shown in the first Appendix. In Appendix two there is a discussion of the employment picture for certified educators in Massachusetts. (JD)

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A STUDY OF THE 1976 GRADUATES OF SCHOOL OF EDUCATION'S TEACHER PREPARATION PROGRAMS

by

Kathy Daly

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Teacher Education Council

School of Education

University of Massachusetts, Amherst

May, 1977

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A STUDY OF THE 1976 GRADUATES OF
SCHOOL OF EDUCATION'S TEACHER PREPARATION PROGRAMS

Contents

	page
Highlights of the study	1
Introduction	3
Survey methodology	4
Limitations of this study	8
Employment and demographic data	8
Sources used in employment search	13
Employment--comparisons by sex, salary, satisfaction, and type of work	16
Employment--comparisons by program	18
Preservice variables and employment status	20
Preservice variables--total sample	22
Comparisons of preservice variables over a four-year period	23
Responses for variables "not part of program" and "had none, but needed it"	26
Relationship of preservice variables to overall assessment variable	28
Comparisons of programs on preservice variables	29
Responses to open-ended question	34
Appendix I: The Questionnaire	API,1-4
Appendix II: Placing graduates' employment in perspective	APII,1-3

Tables and Figures

		page
Table 1:	Response rate of 1976 graduates to TEC survey by program	6
Table 2:	Percentages in each employment status category by program	12
Table 3:	Sources used in education job search and sources by which employment was secured by graduates	15
Table 4:	Percentage of students employed in education-related settings by program	18
Table 5:	Comparisons of programs on employability	21
Table 6:	Preservice variable means, 1973-1976 graduates	24
Table 7:	Contrast of 1975 and 1976 graduates for percentage of responses in "poor" and "good" categories	25
Table 8:	Increases in mean scores on variables over a four-year period	26
Table 9:	Comparison of programs on preservice variables (see also summary tables, pp. 30 and 31)	39-40
Figure 1:	Response rate of TEC surveys, 1972-1976 graduates	7
Figure 2:	Employability and male/female proportions for each preservice program	10
Figure 3:	Program's percent of employment contribution	19
Figure 4:	Scores on Dimension 1	41
Figure 5:	Scores on Dimensions 2 and 3	42
Figure 6:	Scores on Dimensions 4 and 5	43
Figure 7:	Scores on Dimensions 6 and 7	44

Highlights of the TEC survey of 1976 graduates of preservice programs

1. Those graduates responding to the survey numbered 265 out of 435, for a 61 percent return rate--the highest response rate for the four years of TEC surveys.

2. Women comprise 73 percent of the sample; men, 27 percent. The sample sex proportion is nearly identical to that of the population of TEC graduates (74 percent women, 26 percent men). The proportion of women to men in TEC programs over the years has remained about the same: 1973 (78 percent women, 22 percent men); 1974 (74 percent women, 26 percent men); 1975 (80 percent women, 20 percent men).

3. Employment rate in education-related settings is 52 percent (26 percent full-time teaching, 20 percent part-time teaching, and 8 percent full-time work in education-related settings). The programs with the proportionally highest employability rates are Special Education, Amherst-Pelham, and Early Childhood Education.

4. The three top sources by which employment was secured by education-employed graduates are friends and contacts, "my own initiative" or "applied directly to employer," and personal mailing campaign.

5. The variables associated with the student teaching experience were rated the highest by graduates. Variables with the lowest ratings were quality and meaningfulness of foundations course, help in learning about programs, general academic advisement, and provision made for the job market. Overall, the means for all variables are higher than in past years. Although most variable means are about the same as those reported for 1975 graduates, there are noticeable increases for quality and quantity of UMass supervision during student teaching, while there are slight decreases for usefulness of

other methods courses and for overall quality of undergraduate experience.

6. As surveys from past years have indicated, there is high variation among programs in graduates' perceptions of their undergraduate experience. In combining results of program ratings on (1) summation of pluses or minuses about the overall mean (+.5 standard deviation from the mean) for each variable by program; (2) summation of high and low ratings for each variable, based upon how the majority of students in each program rated that variable; (3) a dimension termed "overall assessment" of undergraduate experience that collapsed ratings for four variables, the following programs had the highest ratings by graduates (listed alphabetically): Cooperative Education, Education for a Changing World, Integrated Day, Mark's Meadow, New Mexico, and Special Education. Programs with the lowest ratings include: Off-Campus; Secondary Education, English; and Secondary Education, Science and Social Studies.

Introduction

Since 1972, graduates of University of Massachusetts School of Education Teacher Preparation Programs have been surveyed annually by the Teacher Education Council (TEC) (Reed & Hatch, 1973; Reed & Schniedewind, 1974; Reed & Raynor, 1975; Reed & Rindone, 1976a). Graduates have rated the quality and relevance of their undergraduate experience along a number of dimensions such as, student teaching experience, development of professional skills and personal awareness, and theory and methods coursework.

In response to the School of Educations's "firm commitment to nuture alternative programs," a variety of teacher preparation programs have been established over this five-year period. In 1972, there were 15 teacher preparation programs (hereinafter termed "preservice" programs), while today there are 18 programs; and over the years some programs have been dropped, others added, and others combined in response to student needs and faculty experimentation and innovation. Since "the School of Education values options for students and faculty ... coexisting programs may emphasize different learning styles, focus on different populations, or be grounded in different theoretical assumptions" ... to provide the student "the duel options of selecting from a wide variety of programs or creating individual programs" ... and to provide the School's faculty the expression of their "individual interests and competencies" (TEC Report, 1975).

The annual TEC surveys of preservice program graduates monitor differences in programs' outlooks and performances, and provide an overall picture of demographic and employment features of graduates. These data have aided TEC in program development and modification (TEC Report, 1975).

In addition, survey data from the 1974 graduates was used for a follow-up survey on employers of preservice graduates (Reed, 1975), and the 1976 study was enlarged to include perceived inservice needs of graduates for input to the School of Education's development and expansion of its inservice programs.

This year's study surveyed graduates of 16 ongoing TEC programs, as well as graduates of five recently terminated programs. Two other TEC programs, Juvenile Justice and Human Services, were also surveyed, but since these programs focus more on counselling and advocacy than on teacher preparation, their data are reported separately (Daly, 1977).

This report will present a demographic and employment profile of the 1976 preservice graduates, an analysis of the overall ratings of programs on preservice variables, comparisons of programs on employment and preservice variables, and, where appropriate, comparisons of results from 1976 with those of past years to discern trends or changes over the years.

Survey methodology

The questionnaire: The questionnaire used in this year's study is shown in Appendix I. About one-third of the questions relate to demographic and employment descriptors, while the remaining two-thirds explore selected features and components of the preservice program experience. The content of this year's questionnaire is similar in most respects to that of last year's, with the exception of (1) elimination of questions relating to inservice needs and (2) the addition of four questions, two of which explore more fully cross-cultural attitudes and two of which explore general academic advisement and job preparedness. The rationale for eliminating questions related to inservice needs stemmed from a desire to make the questionnaire shorter and thereby increase the chances for a higher response

rate. Since participants of School of Education inservice programs had been surveyed in 1976 (Reed & Rindone, 1976b), and will be surveyed again this year, collection of data on inservice needs was not essential for the preservice questionnaire. Suggestions for modifications to a draft questionnaire were elicited from all preservice program directors, with the result being the addition of the four questions and slight changes in wording of some questions. However, the general similarity in questionnaire content will allow for good comparisons with the 1975 graduates, as well as with the 1973 and 1974 graduates.

The sample: As Figure 1 shows, over the past four years the response rate for the TEC preservice survey has been steadily declining (from 54 percent in 1972, 53 percent in 1973, 45 percent in 1974, and 34 percent for 1975 graduates). As a result, the findings from recent years' surveys were becoming increasingly less persuasive owed to the smaller percentage of graduates responding, i.e., the "representativeness" of the sample was questioned. To overcome this trend, two measures were taken to enhance student response this year: (1) the cover letter sent out with each questionnaire, although of exact content, was signed by the program director for each student; and (2) the questionnaire's format was changed to lend greater appeal for responding (e.g., it "looked" shorter because print size was reduced, and it looked less confusing with the removal of the seven-point scale following each question).

The questionnaire was mailed in late November, 1976, to all graduates on record of the 1976 class who had completed one of the preservice programs. In mid-January, 1977, a follow-up questionnaire was sent to individuals who had not responded to the first survey. Of the original 457 questionnaires sent out, 22 were returned "undeliverable"; thus, the number of graduates

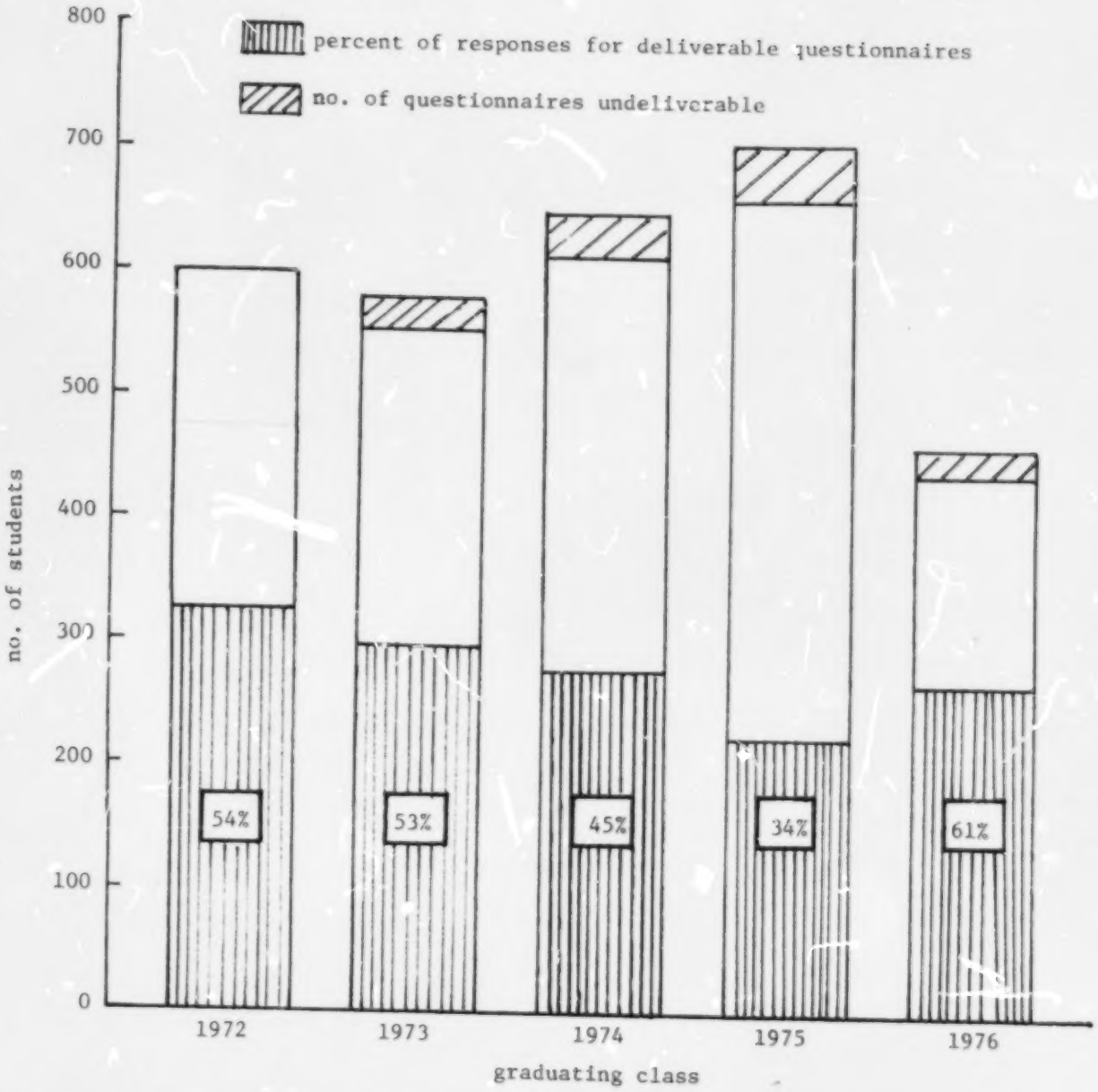
who could be contacted was 435, and from these 265 or 61 percent responded. (Please refer to Table 1 for response rates by program.) With this improved response rate, analysis of TEC programs may be more credible.

TEC Program	initial "N"	returned, not deliverable	revised "N"	total received	% of revised "N"
Agricultural Ed	15	1	14	7	50
* Alternative Schools	3	0	3	0	0
Amherst-Pelham	44	0	44	32	73
Bilingual/Bicultural Ed	12	0	12	6	50
Early Childhood Ed	11	0	11	8	73
Ed for a Changing World	31	2	29	14	48
Cooperative Ed	10	0	10	8	80
Special Ed	33	2	31	23	74
Explorations	45	5	40	26	65
Integrated Day	32	0	32	25	78
New Mexico	12	0	12	7	58
* Mark's Meadow	9	1	8	7	87
Secondary Ed, English	16	0	16	12	75
Secondary Ed, Math	5	0	5	4	80
Secondary Ed, Sci & SS	11	0	11	8	73
Urban Ed	31	2	29	13	45
Human Development	80	6	74	37	50
* Off-Campus	43	0	43	18	42
Anisa	7	2	5	4	80
* Eleven Plus	2	0	2	2	100
* Media Specialists	5	1	4	4	100
TOTALS	457	22	435	265	61%

*terminated TEC programs

Response rate of 1976 graduates to TEC survey by program

Table 1



graduating class	initial "N"	returned undeliverable	revised "N"	total received	percent of revised "N"
1972	600	--	600	325	54%
1973	577	24	553	294	53%
1974	647	35	612	275	45%
1975	704	47	657	223	34%
1976	457	22	435	265	61%

Response rate of TEC surveys, 1972-1976 graduates

Figure 1

Limitations of this study

Before examining the results from the survey, we remind readers that these data are composed of graduate perceptions. Therefore, caution is advised in interpreting results. Self-report data may have built-in biases that tilt results; other sources of information (such as individual TEC program evaluations) should be referred to in order to place these data into a wider context. Since TEC programs by definition are uniquely structured, with varied "personalities" and focuses, when examining items that differentiate among programs, the reader is reminded that programs may intentionally differ in the degree of importance they attribute to certain items. Thus, a low rating by graduates on a particular variable may be expected and be of little importance so far as that program is concerned.

For example, two questions pertaining to the 'quality and quantity of UMass supervision during student teaching" were rated low by students in the Off-Campus program. Since many Off-Campus students are placed outside Massachusetts for their student teaching, this result would be expected. Another example is that of an Explorations student who noted in her open-ended response that

> "The Explorations program allowed us a great deal of freedom in selecting and organizing our courses. Therefore, many of these questions are scored lower than the favorable impression they actually evoked in the student. In other words, we did our own 'programming'."

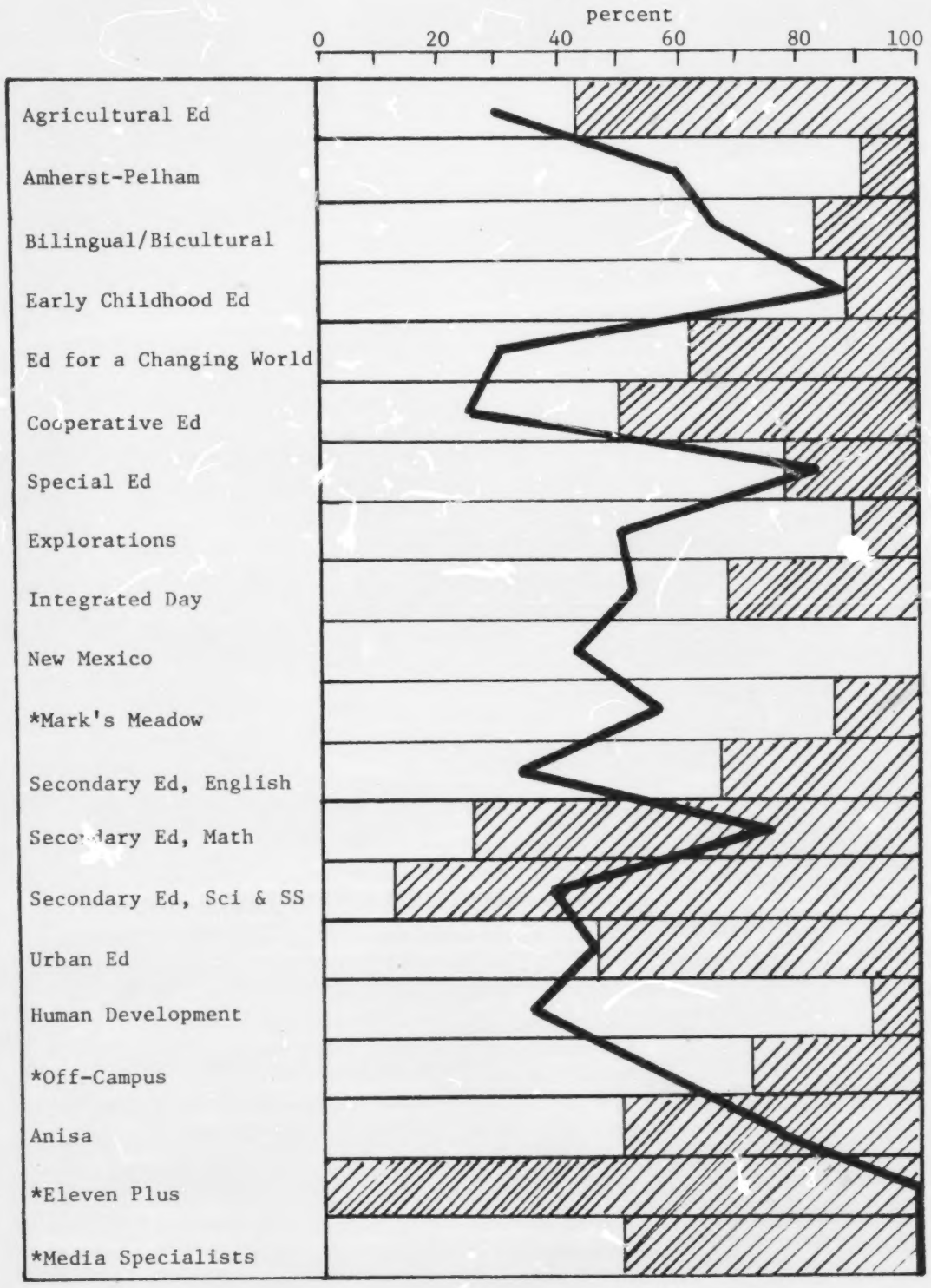
Results from the total sample

Employment and demographic data

These data (items 1 to 14 in the questionnaire) are summarized in Appendix I, and the following narrates the results.

Sex: Women comprise 73 percent of the sample, while men comprise 27 percent. Note that the sex proportion of the sample is nearly identical to that of the total number of women (74 percent) and men (26 percent) in TEC programs. A comparison among the 16 on-going preservice programs shows significant differences (at .0001 level) in the proportion of women and men. Seven programs have markedly larger percentages of women (greater than 80 percent): Amherst-Pelham (91 percent), Bilingual/Bicultural (83 percent), Early Childhood Ed (88 percent), Explorations (89 percent), New Mexico (100 percent), and Human Development (92 percent). A higher proportion of men (given the overall 80:20 female/male ratio) is found in five programs: Agricultural Ed (57 percent), Cooperative Ed (50 percent), Secondary Ed, Math (75 percent), Secondary Ed, Science and Social Studies (88 percent), and Anisa (50 percent). A histogram of sex by program is shown in Figure 2, along with education employment rate by program, a topic that is treated in more detail below.

Degree status, college major, and certification: For degree status, 75 percent of the sample have a Bachelor of Arts, while 25 percent received a Bachelor of Science. College majors fell into the following areas: Education, the largest, with 64 percent; College of Arts and Sciences (Social and Behavioral Sciences, Humanities, and Mathematics and Science) with 15 percent; Human Development with 15 percent; and a number of other areas (Natural Resources, Health, BDIC) with 6 percent. For certification status, the majority of the sample were certified in elementary education (62 percent), followed by secondary education (16 percent), and then specialist (9 percent); about 4 percent were certified in a combination of the above three categories, and about 8 percent said they were not certified.



Employability and male/female proportions
for each preservice program

Figure 2

Employment status--general: The six categories for employment status were extended to nine, to include combinations of categories. Below lists the numbers of students in each category, and the percentage of the total.

	no. of students	%
(1) full-time teaching	69	26.0
(2) part-time teaching	52	19.6
(3) indirect teaching	17	6.4
(4) further study	15	5.7
(5) other occupation area	75	28.3
(6) neither studying nor employed	17	6.4
(7) part-time teaching and other occupation area	9	3.4
(8) teaching and further study	7	2.6
(9) other occupation area and further study	4	1.5
Total	265	100%

For the final determination of graduates' employment status, those in categories (8) and (9) were placed in "further study," and those in category (7) were placed in "other occupation area." Although students in categories (7) and (8) are involved in some teaching activities, it was felt that their teaching was secondary to the main activity.

Combining percentages for full-time, part-time, and indirect teaching, there is a total of 52 percent working in education or an education-related setting. For those graduates not working in an education-related setting, 72 percent are employed in other occupation areas, 10 percent are in graduate school, and 6 percent are neither employed nor in school. Table 2 depicts percentages in each employment category by program.

For those graduates employed in an education-related setting, 80 percent are working in Massachusetts, 18 percent are working outside Massachusetts,

(percentages)

		EDUCATION EMPLOYED				OTHER		
TEC Program	N =	full-time	part-time	ed related	Total ed employed	other occup. area	further study	none
Agricultural Ed	7	29	0	0	29	43	14	14
Amherst-Pelham	32	34	25	0	59	32	6	3
Bilingual/Bicultural Ed	6	66	0	0	66	17	0	17
Early Childhood Ed	8	75	13	0	88	12	0	0
Ed for a Changing World	14	15	7	7	29	43	14	14
Cooperative Ed	8	0	25	0	25	75	0	0
Special Ed	23	70	4	[illegible]	[illegible]3	9	4	4
Explorations	26	19	27	4	50	31	19	0
Integrated Day	25	16	32	4	52	40	4	4
New Mexico	7	0	29	14	43	43	0	14
Mark's Meadow	7	14	43	0	57	43	0	0
Secondary Ed, English	12	17	16	0	33	42	25	0
Secondary Ed, Math	4	50	25	0	75	25	0	0
Secondary Ed, Sci & SS	8	25	13	0	38	50	12	0
Urban Ed	13	8	23	15	46	31	8	15
Human Development	37	8	14	13	35	32	19	14
Off-Campus	18	22	28	6	56	28	11	5
Anisa	4	50	25	0	75	0	0	25
Eleven Plus	2	0	0	100	100	0	0	0
Media	4	50	25	25	100	0	0	0
Mean percentage for each category		26%	20%	6%	52%	32%	10%	6%

Percentage in each employment status category by program

Table 2

and 2 percent are working outside the United States. The job setting for these graduates is 27 percent rural, 38 suburban, 33 percent urban, and 2 percent some combination of these three categories (this last category includes substitute teachers). Both of these job setting percentages are almost identical to those of last year. Type of institution most graduates worked in was public (73 percent), followed by private (15 percent), and non-profit (12 percent). The majority of graduates' salaries for education work fell in the lower salary levels, with 41 percent making below $4,000; 22 percent, $4,000 to $7,500; 26 percent making $7,500 to $9,500; 7 percent, $9,500 to $10,500; and 4 percent in the greater than $10,500 bracket.

For those graduates who replied they were not working in education-related settings (48 percent of sample), the reasons were: decided that I do not want to teach (20 percent); want to teach but could not find a job (51 percent); want to teach but could not find a job that is acceptable (12 percent); further study (10 percent); with the remainder (7 percent) giving no reason.

Employment context

In Appendix II there is a discussion of the employment picture for certified educators in Massachusetts which places the preservice graduates' employment-in-education in better perspective. As well, a discussion of employability rates of certified versus non-certified undergraduates poses some provacative questions regarding teacher education.

Sources used in employment search

Table 3 lists the possible sources that employed graduates in education-related settings drew upon in search of a job. In the left-hand

column of the table, the percentages for each type of source used in the job search are shown. Since many graduates checked more than one category, the total percentage is far greater than 100 percent. In the right-hand column is the source by which employment was secured. Note that about 28 percent of the graduates answered this question by saying "my own initiative," "myself," or "applied directly to employer"; a separate category was made for this group rather than lumping it with the "other" category.

These "employment found by" percentages are corroborated by survey results of 10 million jobseekers in 1972 compiled by the Bureau of the Census, U.S. Department of Commerce (under the direction of the U.S. Department of Labor). In that study (published in Occupational Outlook Quarterly, winter, 1976), it was found that two-thirds of the jobseekers found work as a result of one of three methods: applying directly to employers, asking friends, or consulting newspaper ads. The study concluded that most jobseekers depended on these more informal methods; and the TEC graduate data for both 1975 and 1976 also show this tendency. Although students draw upon the University Credential Service, Vacancy Notices, Career Library, Student Development Center (now called Community Development Center), and Career News in looking for a job, they do not obtain their job through any of these sources. Instead, personal friends and contacts (contact often made through a past job experience) aid the student in securing a job. "Self-initiative" and "applying directly to employer" are the next likely methods for getting a job, followed by "personal mailing campaign."

The School of Education could aid the preservice graduate by soliciting support from past graduates in the field of education to alert the School of job openings.

percent of education-employed graduates using source in their job search (N = 138)	source in job search	percent of education-employed graduates securing employment by this source (N = 138)
56	(1) University Credential Service	less than 1
38	(2) Vacancy notices, Career Library	less than 1
6	(3) Campus Recruiting Program	0
18	(4) Career News	0
21	(5) Departmental faculty/resources	3
78	(6) Friends/Contacts	33
18	(7) Commercial Employment Agency	3
22	(8) Relatives	1
53	(9) Newspaper Ads/Professional Journals	8
55	(10) Personal Mailing Campaign	14
7	(11) Other	6
	(12) "My own initiative" or "applied directly to employer"	28
	(graduate did not respond)	10

Note: In some cases graduates gave a combination of sources by which employment was secured, and thus the percentages in the right-hand column add up to a little more than 100 percent.

Sources used in Education Job Search and
Sources by which Employment was Secured by Graduates

Table 3

This direct and informal network of job openings (rather than the more indirect and formal linkages made from employment sources 1 through 4 shown in Table 3 may result in higher employability for School of Education graduates.

Employment--some comparisons by sex, salary, satisfaction, and type of work

A number of cross-tabulations were performed to focus in on some questions regarding the education-employed graduate: Was job satisfaction related to type of education employment, or to salary? Were there differences between men and women regarding job satisfaction, salary level, and type of education work? Were there preservice variables that related to employment in education? These questions were pursued with the following results.

Employment status and sex of respondent: Of those employed in education, one-half are full-time teaching, one-third are part-time teaching, and one-sixth are in "indirect teaching" positions. There is a slight trend ($p \leq .07$) toward higher proportions of women employed in part-time teaching jobs than men, and for higher proportions of men to be employed more in "indirect teaching" areas than women. However, there are equal proportions of both sexes in full-time teaching. Interestingly, the proportion of women and men working in education of the total sample (73 and 27 percent, respectively) is the identical sex ratio of the total sample. This ratio holds, as well, across the other three categories of employment status (further study, other occupation areas, and not employed). Thus, there appears to be an identical pattern for both sexes in these four employment status areas.

Job satisfaction: contrast with salary, sex, and type of work:

To test for a relationship between job satisfaction for education-employed graduates and salary level, job satisfaction was collapsed into three categories, low (scale ratings 1 and 2), average (rating 3), and high (ratings 4 and 5); then it was cross-tabulated with salary. A significant relationship was found ($p \leq .005$) between increasing job satisfaction and increasing salary levels.

"Job satisfaction" may relate to many aspects of the work experience, an important one of which is the fulfillment and expression of teacher preparation training. It was therefore hypothesized that full-time teaching would show the highest job satisfaction compared with part-time teaching or "indirect teaching," if only that graduates were prepared for this particular job expectation. This was evidenced in a cross-tabulation of job satisfaction by type of education work ($p \leq .005$). In the high job satisfaction category, full-time teaching had the highest proportion of students, followed by part-time teaching, and "indirect teaching." And, of the three types of work, part-time teaching had the highest proportion of students responding in the low job satisfaction category. Indirect teaching was split between average and high job satisfaction. One interesting result of this comparison was that for those teaching on a part-time basis, job satisfaction was concentrated in both the low and high cells. Because of the variety of part-time teaching situations that a graduate could have and the range of fulfillment of education job expectations (from substitute teaching to part-time specialist), it is to be expected that a range of job satisfaction would be expressed for this type of education work.

Salary, job satisfaction, and sex of respondent: There is no relationship between job satisfaction and the sex of the respondent, with approximately equal proportions of both sexes falling in the low, average, and high job satisfaction cells. However, there appears to be a slight trend ($p \leq .07$) toward higher salary levels for men, although this may be attributed to the fact that more women are employed in part-time positions and would, as a result, have a lower annual salary.

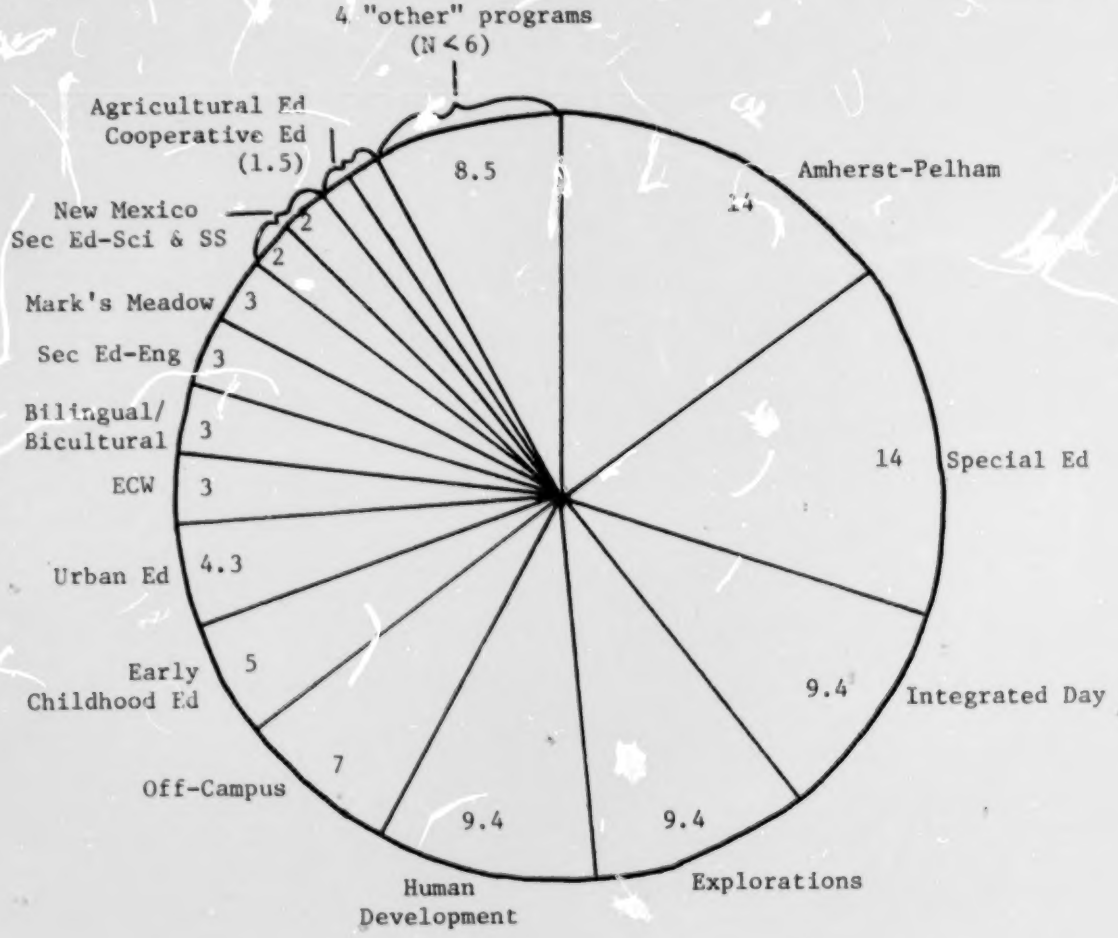
Employment--comparisons by program: Please refer back to Figure 2 and Table 2 for percentages of students in education employment by program. Although all programs are listed on that figure and table for the reader's information, the following comparative analysis will be for programs having at least six students. The table below shows the distribution of programs for three employment rate categories: higher than average (greater than 55 percent), average (45 to 55 percent), and lower than average (less than 45 percent).

higher than average (greater than 55%)	average (45 to 55%)	lower than average (less than 45%)
(88%) Early Childhood Ed	(52%) Integrated Day	(45%) New Mexico
(83%) Special Ed	(50%) Explorations	(38%) Secondary Ed, Sci & SS
(66%) Bilingual/Bicultural	(46%) Urban Ed	(35%) Human Development
(59%) Amherst-Pelham		(33%) Secondary Ed, English
(57%) Mark's Meadow		(29%) Agricultural Ed
(56%) Off-Campus		(29%) [illegible] for a Changing World
		(25%) Cooperative Ed

Percentage of students employed in education-related settings by program

Table 4

Since these percentages may unfairly reflect student employability across programs (because of varying N sizes), another way of presenting employment data is by a pie diagram (Figure 3). The total number of students employed is used as the base (N = 138), from which the students employed by each program are shown as a percentage of this base.



Program's percent of employment contribution

Figure 3

This presentation may also be biased--this time in favor of those programs with the largest number of graduates. Although one sees that eight programs contribute 72 percent of the overall "employables in education," they also constitute 68 percent of the overall sample size. Thus, to place a comparison of programs by employment in perspective, one should compare the results by looking at both presentations. Table 5 shows this comparison, and one can see that proportionally, employability is highest in Special Education, Amherst-Pelham, and Early Childhood Ed. Other programs are very similar in their proportions to employability, with the exception of Human Development--the largest TEC program--which has a disproportionately lower employability.

Preservice variables and employment status

To determine whether the employment status of graduates contributed to variations in their ratings of preservice variables, a cross-tabulation of each preservice variable was made (collapsing the rating scale into three catefories: 1 and 2 = low, 3 = average, 4 and 5 = high) with employment status (full-time, part-time, and indirect teaching were termed "teaching", while the remaining categories were termed "not teaching").

Graduates who are employed in education-related settings tended to rate the following preservice variables higher than those graduates who are not:

- # 41: support, personal help, and advice from staff of program concerning specific preparation program ($p \leq .001$)
- # 21: length of time teaching ($p \leq .05$)
- # 31: opportunities for decision-making in setting personal goals and choosing own methods for reaching goals ($p \leq .038$)
- # 33: knowledge of interpersonal interactions ($p \leq .07$)

Program	percent contribution to employed graduates (N = 138)	program's percent of overall sample (N = 265)
Agricultural Ed	1.5	2.6
Amherst-Pelham	14.0	12.1
Bilingual/Bicultural	3.0	2.3
Early Childhood Ed	5.0	3.0
Ed for a Changing World	3.0	5.3
Cooperative Ed	1.5	3.0
Special Ed	14.0	8.7
Explorations	9.4	9.8
Integrated Day	9.4	9.4
New Mexico	2.0	2.6
Mark's Meadow	3.0	2.6
Secondary Ed, English	3.0	4.5
Secondary Ed, Sci & SS	2.0	3.0
Urban Ed	4.3	4.9
Human Development	9.4	14.0
Off-Campus	7.0	6.8
Other (programs with N less than 6)		
Anisa	2.0	1.5
Eleven Plus	1.5	less than 1
Media	3.0	1.5
Secondary Ed, Math	2.0	1.5
	100%	100%

Comparisons of programs on employability

Table 5

In looking at the differences in percentages in the low, average, and high categories with each of these items, however, the variations are relatively small; and the strength of association (as measured by the contingency coefficient) is not large enough to warrant speculation that certain undergraduate experiences may predict employment in education.

Preservice variables--total sample

Table 6 displays the means for all preservice variables for 1976, together with means of the previous three years (the 1972 graduate data are not comparable). Variables which have relatively low means include: "quality and meaningfulness of foundations course" (#'s 19 and 20), "use of community resources" (# 27), and "special learning preparation" (# 29). However, the lowest rated variables are "help in learning about programs" (# 31) and "provisions for facing the job market" (# 43). Relatively high means are found in the student teaching variables (#'s 21, 22, 23, and 24), "personal decision making" (# 31), "interpersonal learning" (# 33), and "learning of self" (# 34). The highest mean is for "duration of field work" (# 21).

The 29 preservice variable means that can be compared with last year's study are very similar. There is a slight overall increase in means for 1976 graduates compared to 1975. In looking at the differences between 1975 and 1976, the following changes are the most noticeable:

- 7 percent decrease in mean for "usefulness of other methods courses" (# 16)
- 6 percent decrease in mean for "overall quality of undergraduate experience" (# 46)
- 11 percent increase in mean for "quantity of UMass supervision during student teaching" (# 25)

- 14 percent increase in mean for "quality of UMass supervision during student teaching" (# 26)
- 5 percent increase in "overall interconnectedness of preservice program" (# 45)

Overall, there is a remarkable similarity of response between 1975 and 1976 graduate responses. In Table 7 the 29 comparable preservice variables are shown with the percentages of responses that fall into the "poor" category (scale ratings 1 and 2) and in the "good" category (scale ratings 4 and 5). Variables with increases or decreases in percentage responses for 1975 to 1976 conform to the "noticeable increases and decreases" cited above; but the great majority of percentage responses in the "poor" and "good" categories are about the same for both years.

Comparison of preservice variables over a four-year period

To compare mean scores across four years, the following categories were used: mean scores from 1.0 to 2.99 indicate a "poor" rating; 3.0 to 3.59 a "moderate" rating, and 3.6 to 5.0 a "good" rating. Over the years, for variables that are comparable (note, however, that in 1974, "help in learning about programs" is added), the trend for number of variables falling into these three categories is:

	1973	1974	1975	1976
poor	6	5	1	1
moderate	8	9	6	5
good	5	6	13	14

One can trace the change in ratings over this four-year period for each variable by noting the series of P's (for poor), M's (for moderate) and G's (for good) that follow each variable descriptor in Table 6.

Variable # and descriptor	variable response (P,M,G) 1973-76	1973	1974	1975	1976
15 Methods (Potpourri)	M-M-M-M	3.06	3.10	3.47	3.43
16 Methods (Other)	G-M			3.72	3.45
17 Quality Ed Psych	M-M-G-G	3.27	3.35	3.69	3.86
18 Meaningfulness Ed Psych	M-G			3.44	3.62
19 Quality Foundations	P-P-M-M	2.87	2.95	3.27	3.09
20 Meaningfulness Foundations	M-M			3.01	3.00
21 Duration of Field Work	G-G			4.45	4.64
22 Usefulness of Local School Classroom	G-G			4.29	4.32
23 Usefulness of Total Local School	G-G-G-G	4.34	4.43	4.24	4.21
24 Quality of Cooperating Teacher Help	G-G-G-G	4.06	4.16	4.06	4.21
25 Quantity of UMass Supervision	M-M-M-M	3.15	3.21	3.07	3.42
26 Quality of Umass Supervision	M-G			3.23	3.69
27 Community Resources	M-M			3.25	3.23
28 Learner Diagnoses	M-G-G-G	3.49	3.65	3.64	3.70
29 Special Learning Diagnoses	M-M			3.10	3.31
30 Understanding Varied Learner Background	P-M-G-G	2.93	3.10	3.51	3.66
31 Personal Decision Making	G-G-G-G	3.57	3.63	4.05	4.09
32 Quality of Academic Learning	P-P-G-G	2.59	2.79	3.51	3.70
33 Quality of Interpersonal Learning	G-G-G-G	3.57	3.64	3.75	3.99
34 Quality of Learning of Self	M-M-G-G	3.24	3.38	3.93	4.01
35 Institutional Racism	P-P-M-G	2.76	2.84	3.43	3.60
36 Cultural Differences Learning	G				3.56
37 Awareness of Cross-Cultural Attitudes	G				3.52
38 Institutional Sexism	P-P-M-M	2.44	2.75	3.42	3.46
39 School and Social Change	P-M-M-M	2.97	3.06	3.34	3.40
40 Help Learning about Programs	P-P-P		2.43	2.73	2.83
41 Advising Help Program Staff	M-M-G-G	3.00	3.32	3.72	3.72
42 Advising Help Academic Program	M				3.04
43 Discussing Job Market	P				2.95
44 Beliefs of Program Goals	M-M-G-G	3.16	3.38	3.88	3.99
45 Overall Interconnectedness	M-G			3.48	3.67
46 Overall Quality of Undergrad Experience	G-G-G-G	3.85	3.86	3.94	3.69
47 Overall Quality of Program	M-M-G-G	3.40	3.48	3.65	3.80

Preservice variable means, 1973-1976 graduates

Table 6

Contrast of 1975 and 1976 graduates for percentage of responses in "poor" and "good" categories (total sample)*

variable #	and descriptor	% of responses "poor" 1975	% of responses "poor" 1976	% of responses "good" 1975	% of responses "good" 1976
15	Methods (Potpourri)	16	16	53	49
16	Methods (Other)	9	16	63	53
17	Quality Ed Psych	14	9	66	70
18	Meaningfulness Ed Psych	20	14	57	58
19	Quality Foundations	28	33	48	42
20	Meaningfulness Foundations	35	33	35	34
21	Duration of Field Work	2	2	90	94
22	Usefulness of Local School Classroom	5	5	86	83
23	Usefulness of Total Local School	6	6	83	80
24	Quality of Cooperating Teacher Help	12	11	74	79
25	Quanity of UMass Supervision	35	22	41	54
26	Quality of UMass Supervision	29	19	49	64
27	Community Resources	30	24	45	41
28	Learner Diagnoses	14	11	62	62
29	Special Learning Diagnoses	32	22	43	43
30	Understanding Varied Learner Background	21	13	56	50
31	Personal Decision Making	9	8	75	76
32	Quality of Academic Learning	15	8	55	59
33	Quality of Interpersonal Learning	11	6	65	74
34	Quality of Learning of Self	8	6	75	75
35	Institutional Racism	19	15	50	57
38	Institutional Sexism	19	17	51	50
39	School and Social Change	19	20	48	46
40	Help Learning About Programs	42	39	28	28
41	Advising Help Program Staff	18	16	63	62
44	Beliefs of Program Goals	9	6	73	74
45	Overall Interconnectedness	16	11	56	61
46	Overall Quality of Undergraduate Experience	7	10	71	62
47	Overall Quality of Program	11	7	62	65

* The difference between 100% and the combined percentages of the "poor" and "good" categories is the percentage of responses in the "fair" category.

To place the overall trend of more positive assessment of the undergraduate preservice experience into a better perspective, differences in means on each variable for 1973-1974, 1974-1975, and 1975-1976 were calculated by summing up the differences and dividing by the total number of comparable variables for that particular two-year period. The following table shows the average increase for each year.

comparison period	comparable no. of variables	total increase	average increase	% increase
1973-74	19	2.34	.123	4
1974-75	20	5.39	.2695	8.6
1975-76	29	2.42	.083	2.4

Increases in mean scores on variables over a four-year period

Table 8

As the table shows, the mean response for each preservice variable was 4 percent higher in 1974 than in 1973, 8.6 percent higher in 1975 than in 1974, and 2.4 percent higher in 1976 than in 1975. While the overall increase from 1973 to 1976 is about 15 percent, more than half of the increase is attributable to the 1975 graduates' higher means. It may be possible that graduate perceptions have reached a "steady state" as of 1976 after the large increases in 1975.

Responses for variables "not part of program" and "had none, but needed it"

In addition to the five-point scale from "very poor" to "excellent," there were two other categories for each preservice variable that the graduate could check: "not part of program" or "had none, but needed it." An analysis of responses for these two categories yields some interesting

results. Overall, the percentage range that spanned "not part of program" was 0 to 18 percent, while the range for "had none, but needed it" was 0 to 6 percent. Since these percentages are not all that large, only rough comparative statements, can be made.

For "not part of program," "quality of Potpourri course" (#15) had the highest number of respondents (18 percent), a finding that is not surprising, given that not all programs include this course. "Use of community resources" and "preparation in special learning diagnoses" also had a relatively high percentage of responses in this category (13 percent and 10 percent respectively). These two variables also had the highest percentage of students responding for the category "had none, but needed it" (5 to 6 percent). It appears that some students did not have this aspect of teaching preparation and did not miss it, while others felt their preparation program was deficient in not including this training.

Three preservice variables relating to institutional racism and sexism, and the role of schooling in the study of change also had relatively high percentages in the "not part of program" category (14 percent, 11 percent, and 14 percent, respectively). Similarly, two variables related to cross-cultural differences and attitudes had a moderate number of responses in "not part of program" (8 and 9 percent, respectively). Although the School of Education is firmly committed to developing student awareness in these areas, these results indicate that not all students are being exposed to them.

Relationship of preservice variables to overall assessment variable

All preservice variables were significantly related to variable 47 "overall quality of teacher preparation program", except "undergraduate work other than teacher preparation program" and "help from the University in learning about preparation program." A similar finding was made in last year's study. Although one would expect "undergraduate work other than teacher preparation program" not to be related to "overall assessment of teacher preparation program," the comments in the open-ended question relating to "help from the University" variable make interpretation of this relationship more interesting.

Comments such as,

> "...Many people (who have been interested in getting into teacher preparation programs) have told me the difficulty they have had in getting information and direction. Instead they met with reluctant counselors whose job seemed to be to discourage and create obstacles for these people...My experience was more positive once in a program..."
>
> "I sincerely pity anyone attempting to get certification without established contacts in a cluster..."

indicate that students are faced with a poor advisement system in their early contact with the School of Education. While many students eventually overcome this problem and find a program that is suitable for them, others feel they did not have enough information in choosing a program, and/or once in a program they did not receive sufficient advisement from the program staff.

As a measure of the strength of association between variable 47 and the other preservice variables, the contingency coefficient derived from this analysis can be used as a rough indicator for those variables that are most strongly related to overall assessment of undergraduate experience; the following lists the variables which appear to have the strongest

relationship:

- # 45: overall interconnectedness (cont. coef. = .56)
- # 15: Potpourri course (cont. coef. = .52)
- # 28: diagnosing learner characteristics (cont. coef. = .50)
- # 16: other methods courses (cont. coef. = .49)
- # 33: knowledge about interpersonal interactions (cont. coef. = .48)

Comparison of programs on preservice variables

Of the 20 preservice programs in the sample, 16 had 6 or more graduates responding, and these were used for program comparison analyses. The preservice programs which are not part of the comparison analyses are Secondary Ed, Math; Anisa; Eleven Plus; and Media Specialists. There are a number of ways one can view differences among programs on preservice variables, and the following approaches were used.

1. Comparison of variable means by program using a spread about the mean

An overall comparison among programs' means was made by taking the standard deviation for the overall mean for each variable, using that value as the spread about the mean. To capture program differences, this range was defined as +.5 standard deviation from the mean. In Table 9 (pp. 39-40) the overall mean and standard deviation are shown for each variable; note that an estimate of the variability of response to each variable can be obtained by an examination of the standard deviation. Most variables have a standard deviation of about 1, although some are as low as .6 or as high as 1.2.

An example will aid the reader in interpreting this table. For variable 15, "Potpourri course," the overall mean was 3.43, σ = .96; thus, the range defined for this variable is 2.95 to 3.91; and any program mean

higher than 3.91 on this variable would receive a "+", while any program mean less than 2.95 would receive a "-" (see column A on page 40 of Table 9 for the tabulation of "+'s" and "-'s" for each program).

2. Comparison of program means by percentages "high" and "low"

The percentage of responses that were determined low (scale ratings 1,2,3) or high (scale ratings 4,5) for each of the 33 preservice variables was made for each program. Then, tabulations were made of instances where 50 percent or more of graduates in a program rated a variable low or where 50 percent or more rated a variable high. In cases where the program responses were tied 50 percent in the low and 50 percent in the high category, a low was systematically given for the program (see Column B in Table 9 for the tabulation of "L's" and "H's" for each variable).

The pluses and minuses in Column A for each program are summed across Table 9, the highs and lows in Column B are summed down the column for each variable and summed across the table for each program. The following chart summarizes the "pluses" and "minuses" on variables for each program.

HIGH	MODERATE			LOW
many pluses	more pluses than minuses	even	more minuses than pluses	many minuses
Cooperative Ed (20+,2-)	Special Ed (6+,2-)	Explorations (0,0)	Urban Ed (2+,3-)	Secondary Ed, English (0+,10-)
Integrated Day (10+,0-)	Mark's Meadow (6+,3-)	Human Development (0,0)	Amherst-Pelham (0+,3-)	Off-Campus (0+,13-)
New Mexico (9+,3-)	Ed for a Changing World (5+,2-)	Agricultural Ed (4+,4-)		Secondary Ed, Sci & SS (1+,15-)
	Bilingual/Bicultural (4+,2-)			
	Early Childhood Ed (3+,2-)			

Summation of Pluses and Minuses for each program using a range defined as +.5 standard deviation from the overall mean for each variable

Clearly, Cooperative Ed, Integrated Day, and New Mexico are most positively rated by their graduates, while Secondary Ed, English; Off-Campus; and Secondary Ed, Science and Social Studies are most negatively rated by their graduates.

The computation of highs and lows for each program reinforces this finding, as the following table shows.

Summary table from Table 9, Column B
(percentages for each program in parentheses)

greater than 70% of variables rated high by more than half of grads	50 to 70% of variables rated high by more than half of grads	less than 50% of variables rated high by more than half of grads
Integrated Day (90.9)	Explorations (69.6)	Secondary Ed, Sci & SS (36.3)
Cooperative Ed (87.8)	Agricultural Ed (60.6)	Secondary Ed, English (24.2)
Special Ed (75.7)	Amherst-Pelham (60.6)	Off-Campus (24.2)
New Mexico (72.7)	Human Development (60.6)	
Ed for a Changing World (72.7)	Bilingual/Bicultural (54.5)	
	Mark's Meadow (54.5)	
	Early Childhood Ed (51.5)	
	Urban Ed (51.5)	

The extreme cases in looking at both approaches to comparisons of programs certainly underscore the large variation in undergraduate pre-service experience: for example, Integrated Day had 30 highs and 3 lows, while Off-Campus had 8 highs and 25 lows; Cooperative Ed had 20 pluses and 2 minuses, while Secondary Ed, Science and Social Studies had one plus and 15 minuses.

To determine more precisely those variables which are rated significantly different among programs, an analysis of variance was utilized;

where there are statistically significant differences, the significance level is given beneath the Column B totals in Table 9. Note that the F statistic computed in the analysis of variance assumes conditions of normality, independence, and homogeneity of variance. Error rates become inflated if these assumptions are violated, and if N's are not equal (as in the case in this analysis of variance), the probability of making a Type I error, i.e., stating differences when none exists, may be far greater (Myers, 1972). Thus, the "significance" levels computed in this analysis of variance on preservice variables is at best an approximation because N sizes are varying and in some cases the assumption of homogeneity of variance is violated.

Two-thirds of the 33 variables do show significant differences on program means, while 11 variables show statistically similar mean scores:

- under theory and methods, statistically similar mean scores are found for "usefulness of Potpourri," "meaningful relationships of education psychology and foundations courses";
- for student teaching experience, four mean scores are similar for the field experience, while "provisions for quality and quantity of UMass supervision during student teaching" have statistically different means by program;
- for professional skills and personal growth, there are only 3 variables with statistically similar means, "use of community resources," "diagnosing learner characteristics," and "other academic knowledge";
- for advisement, similar means for programs are found for "learning about programs" and "general academic advisement; and

• for general-headed questions, "agreement in educational beliefs of program" and "quality of ther undergraduate work" have similar mean scores by program.

Generally, those variables with similar mean scores across programs are less influenced by differences in planned program content and implementation; thus, one would expect fewer differences to emerge for these mean scores.

3. Collapsing 47 variables on 7 dimensions of undergraduate experience

This last comparison is made for graphic presentation of differences between programs on preservice variables. Seven dimensions of the undergraduate preservice experience were identified, and the 47 variables were arranged within these dimensions:

- dimension 1: theory and methods courses (#'s 15 to 20)
- dimension 2: student teaching experience (#'s 21 to 26)
- dimension 3: professional skills (#'s 27 to 30, 32, 43)
- dimension 4: personal growth and awareness (#'s 31, 33, 34, 36, 37)
- dimension 5: awareness of institutional racism and sexism; role of schooling as change agent (#'s 35, 38, 39)
- dimension 6: advisement by School of Ed and program staff (#'s 40 to 42)
- dimension 7: general overall assessment of undergraduate experience (#'s 44 to 47)

A mean score on each dimension for each program was computed, as well as an overall mean for all programs on each dimension. The resulting graphs (Figures 4,5,6, and 7) display each program's mean on each dimension, together with the mean for that dimension for all programs plotted horizontally through the graph. Note that ratings for all 20 programs were used

to compute the overall mean.

This analysis was made to provide a more stable estimate of differences between programs on preservice variables, as well as to show the variability graphically between programs in a way that a string of variables and "significant levels" cannot show. In this report the reader has been reminded that program comparisons (using analysis of variance) can be difficult and misleading because of the range of varying N for each program. By using this seven-dimension descriptive picture of programs as an "eyeball" approach to program differences, we may, in fact, be more honestly interpreting data for which more rigorous statistical computations may be inappropriate.

Response to open-ended question

Of the sample of 265 preservice graduates, 163 (or 61 percent) responded to the open-ended question. Although the question is called "open-ended", there was some direction given the students because following "please include any comments you feel may be useful to programs preparing teachers," there was, "for example, discuss the relevance of your preparation program to your present job."

The length of the responses ranged from one cryptic 5-word sentence to a three-page typed (and single-spaced!) critique for improvement of TEC programs. Suggestions for change by graduates fell into three main categories; representative quotes for each category follow to add some flavor:

1. Need for more advice and direction for finding a job

> "To compete in today's job market, it would be most useful to provide as much field work and methods as possible without losing the insight provided by learning about the child as a developing person and learner. In other words--it's very tough out here."

"There should definitely be more information given on how to go about finding a job. My preparation for teaching itself was great, but when I had to face the problem of actually finding a job, I became one of the many "lemmings" walking into the unknown... I was lost. The Student Development Center was helpful in certain aspects, and I attended as many of their workshops as possible. But no one told me what resources were available, what their reliability was, or how to use more creative job-hunting resources. If you really want UMass School of Education graduates to get jobs, help them."

"Don't make the job market sound rosey. Encourage completion of teacher training but offer alternatives and avenues for priming a student for an alternate field ..."

"All programs should provide a session related to job interviewing, the importance of the resume, philosophy of education, how to obtain and write out applications for teaching jobs. This should be provided early in the program, as it all requires time and thought. I sorely needed and missed this experience!!"

"Please! Discourage students who are not clear about their career goals to go into other areas than teaching. And those that are sincere and have no other options to go into a specialty. Give students the facts and figures on the supply of teachers and the job market. I hope to go back into teaching soon. But the work and effort I have given to finding a satisfactory position since January, 1976, was something I was not prepared for. I think many school systems are taking advantage of the oversupply of elementary teachers by underpaying and overworking them. It's a shame to have all that training and not be able to use and implement your ideas and creativity."

2. Need for earlier student teaching experience and more of it

"I found many of the required courses time consuming and presumptuous. All the ideologies sounded fine, but I found many of them barely pertained in the actual classroom. If I had had some actual classroom exposure before I took foundations and other education seminars, perhaps these courses might have been more practical. What I needed was a basis with which your information could relate. As it was, many times I sat, letting it all flow around me, reserving opinion and judgement for a time when it was applicable. By the time I got to interning, I was too busy to reflect on all that ideology. I was busy determining the limits of my personal relationships with the children. How would I speak with them? How could I be sincere and still firm?

How was I to deal with discipline problems: What happened when a child stared at me and said "no"?

... These kids were excited about learning, they wanted to learn. I had to determine in what direction they should go, how fast they should progress. I wanted them to know what they were learning and why. I wanted school to have meaning, even for first and second graders.

... Well, the time flew by, but at least once a day it occurred to me that I just wasn't prepared for this. I was lucky, my cooperating teacher understood. She gave me books to read, she spoke with me about personal experiences, and most of all, she was there to help me every day, to help guide me as I was guiding the children... "

"My student teaching and job searching experiences have brought me to the strong conviction that UMass students enrolled in Teacher Preparation Programs must have more than one semester of student teaching before graduation. With the present job market being what it is, it is mandatory for graduates to have experience enough to join it competently. One semester teaching practice only allows a student teacher isolated experience (and the employers know it); she/he is, for the most part, exposed to only one group of children and one teacher to model after. I feel very strongly that the college student must be broken into teaching continually, and allowed exposure to a variety of teachers, students, teaching methods and learning situations <u>as they occur in the true classroom</u>. (Potpourri is a farce)."

"There can never be too much actual experience, and earlier classroom experience... is essential. ... Early in the program, prospective teachers should have ample reality by which to gauge their supposed decision to be a teacher... "

"The most relevant and educational part was my student teaching experience. It was more helpful than any time spent on the UMass campus... "

"... Too much theory, not enough practical experience (mostly in classroom management)... "

"It is ridiculous to wait 'til you're a senior in college to student teach. Most of your courses are a waste until you have taught... "

3. <u>Need for better advisement and more guidance from the University, School of Education, and program staff</u>

"I'm all for open-ended learning situations, but I think guidance and support are also important... I graduated and then I found about two programs which might have been more useful to me."

"The University in general and the School of Education specifically managed to hinder my efforts in every way conceivable... A pox on undergraduate advising!"

"I do not feel that nearly enough time is spent in advising students and making them aware of the options open to them... I realize that much of the responsibility lies with the student but even when I asked questions I often found that I did not get satisfactory answers... "

"I feel that excepting my student teaching and (one) class, the total contribution of the School of Education to my education was poor. In seeking employment I found my advisors useless, if for no other reason than that they had no conception of my qualities and potential as a teacher. At one point during my student teaching experience my supervisor told me that he knew nothing about elementary education!"

All responses to the open-ended question have been compiled by program, and copies are available. As the preceding quotes show, the graduates' comments are illuminating and poignant; they complement and extend this report's more quantitative assessment of preservice undergraduate experience.

References

Benedict, Larry (personal communication, April 24, 1977).

Bliss, Leonard and Jon Dodds (1977) "A study of undergraduate perceptions of the status of teaching profession in determining strategies for dealing with declining enrollment in Teacher Education" (paper presented at AERA meeting, April).

Lambert, John (personal communication, phone call, 31 March, 1977).

Myers, Jerome (1972) Fundamentals of Experimental Design, 2nd edition, Allyn & Bacon, Boston, Mass.

Randall, Donald and Felix Zollo, Jr. (1974) "Teacher Supply and Demand," Massachusetts Teachers Association, Boston, Mass.

Reed, Horace (1975) "School Employers' Evaluations of the 1974 graduates."

Teacher Education Council (1975) "The preparation of teachers at the School of Education: A report on the past and recommendations for the future."

U. S. Department of Labor, Bureau of Labor Statistics (winter, 1976), "Job Search: There's a method in the madness", Occupational Outlook Quarterly, pp. 18-19.

Teacher Education Council Surveys of graduates

(1973) Reed, Horace and John Hatch, "An Analysis of post graduation status of 1972 teacher preparation students."

(1974) Reed, Horace and Nancy Schniedewind, "Study of the 1973 graduates of the School of Education Teacher Education Programs" (Data from this study were also summarized in Reed and Schniedewind, 1975, "An evaluation of alternative Teacher Education Programs."

(1975) Reed, Horace and Tom Raynor, "Teacher Preparation Programs and employment as perceived by 1974 graduates."

(1976a) Reed, Horace and Douglas Rindone, "Graduates' perceptions of Teacher Preparation Programs, of demographic data, and of inservice needs."

(1976b) Reed, Horace and Douglas Rindone, "Inservice program implementation of School of Education guidelines, 1975-1976 enrollees."

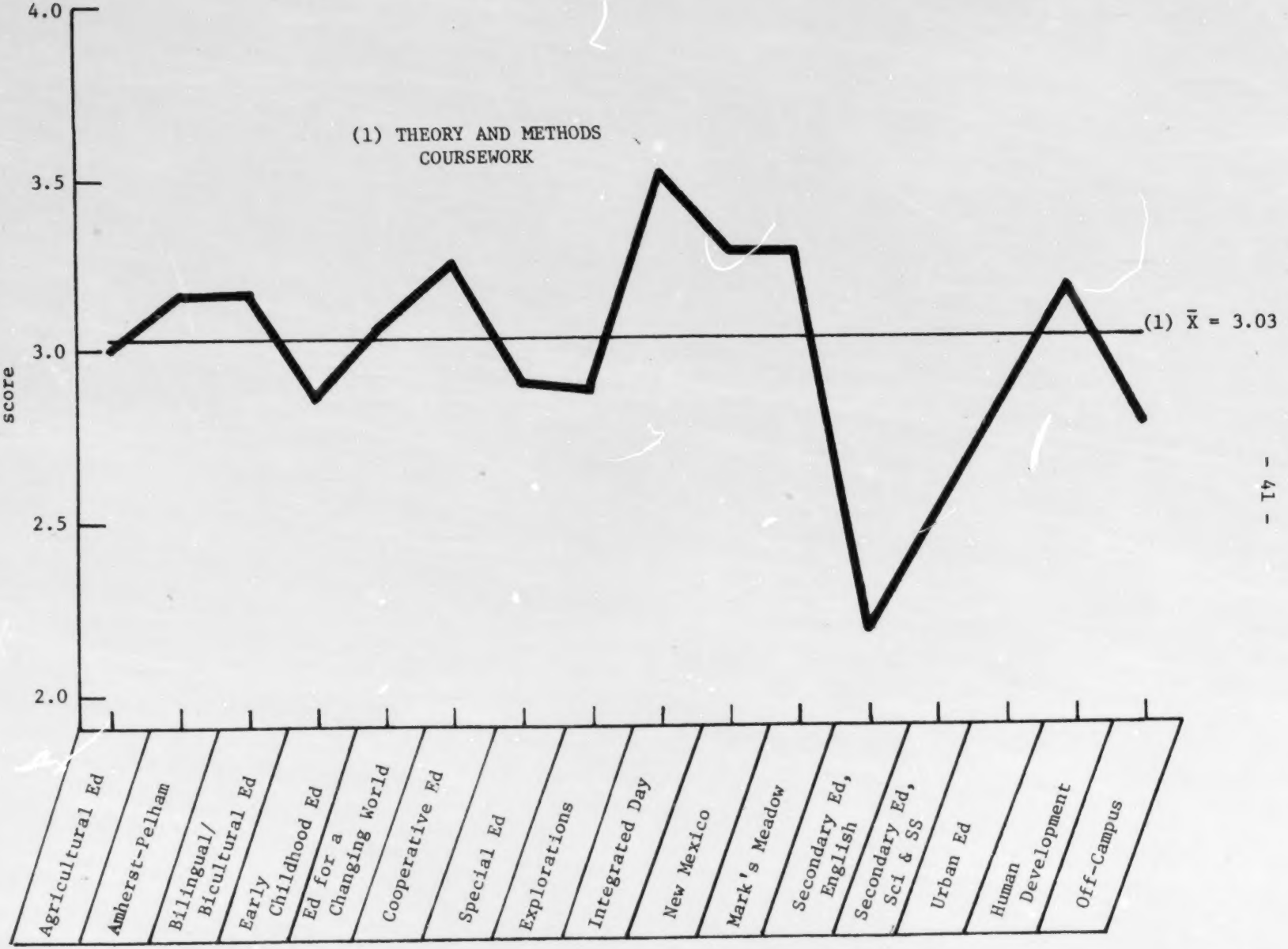
(1977) Daly, Kathy, "Survey results of the 1976 graduates of Human Services and Juvenile Justice Programs at the UMass School of Education."

	var #	15		16		17		18		19		20		21		22		23		24		25		26		27		28		29		30		31		32	
	$\bar{x}$	3.43		3.45		3.86		3.62		3.09		3.00		4.64		4.32		4.21		4.21		3.42		3.69		3.23		3.70		3.31		3.66		4.09		3.70	
	σ	.96		1.06		.92		1.00		1.24		1.16		.68		.92		.96		1.08		1.28		1.28		1.12		1.02		1.28		1.00		.96		.90	
Program	N =	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
Agricultural Ed	7		H		H		H	-	L		H		L	-	H		H		H		H	+	H		H		L		L		L	-	H		H
Amherst-Pelham	32		H		H		H		H		L		L		H		H		H		H		L		H		L		H		L		H		H
Bilingual/Bicultural Ed	6		L		L		H		H		L		L	-	H		H		H		H		H		H		L		L		L	+	H		L
Early Childhood Ed	8		L		L	+	H		H		L		L		H		H		H		H		L		L		L		H		L		H	+	H
Ed for a Changing World	14		L		H		H		H		L		H		H		H		H		H	-	L	-	L	+	H		H		L		H		H
Cooperative Ed	8	+	H	+	H	-	H		H	+	H	+	H	+	H		H		H	+	H		H		H	+	H		L		L		H		H	+	H
Special Ed	23		L		H		H		H	-	L	-	L		H		H		H		H	+	H	+	H		L	+	H	+	H	+	H		H		H
Explorations	26		L		L		H		H		L		L		H		H		H		H		H		H		L		H		L		H		H
Integrated Day	25	+	H	+	H		H		H		H		H		H		H		H		H		H		H	+	H	+	H		H	+	H		H
New Mexico	7	+	H		H	-	L		L	+	H		H		H		H		H		H		H		H		L		H		L	+	H		H		L
Mark's Meadow	7		H		L		H		H		L		L	+	H	+	H	+	H		H		H	+	H		L		L		L		H		H		L
Secondary Ed, English	12		L	-	L		L	-	L		L	-	L		H		H		H		H		L		L	-	L	-	L		L	-	L		H	-	L
Secondary Ed, Sci & SS	8	-	L	-	L	-	L	-	L		L	-	L		H		H		H		H		H		H		L	-	L	-	L		H		H		H
Urban Ed	13		L		L		H		H		L		L		H		H		H		H		H		H		L		H		L	+	H	-	L		H
Human Development	37		H		L		H		H		L		L		H		H		H		H		H		H		L		H		L		H		H		H
Off-Campus	18		L		L		H		L		L		L		H		H		H	-	L	-	L	-	L		H	-	L		L	-	L	-	L	-	L
VARIABLES: Total Low			9		9		3		5		12		12		0		0		0		1		5		4		12		7		14		3		3		5	
VARIABLES: Total High			7		7		13		11		4		4		16		16		16		15		11		12		4		9		2		13		13		11	
significance level			NS		.001		NS		.0001		NS		.05		NS		NS		NS		NS		.0001		.0001		.0001		.0001		.0001		.0001		.0001		.0001	

Table 9

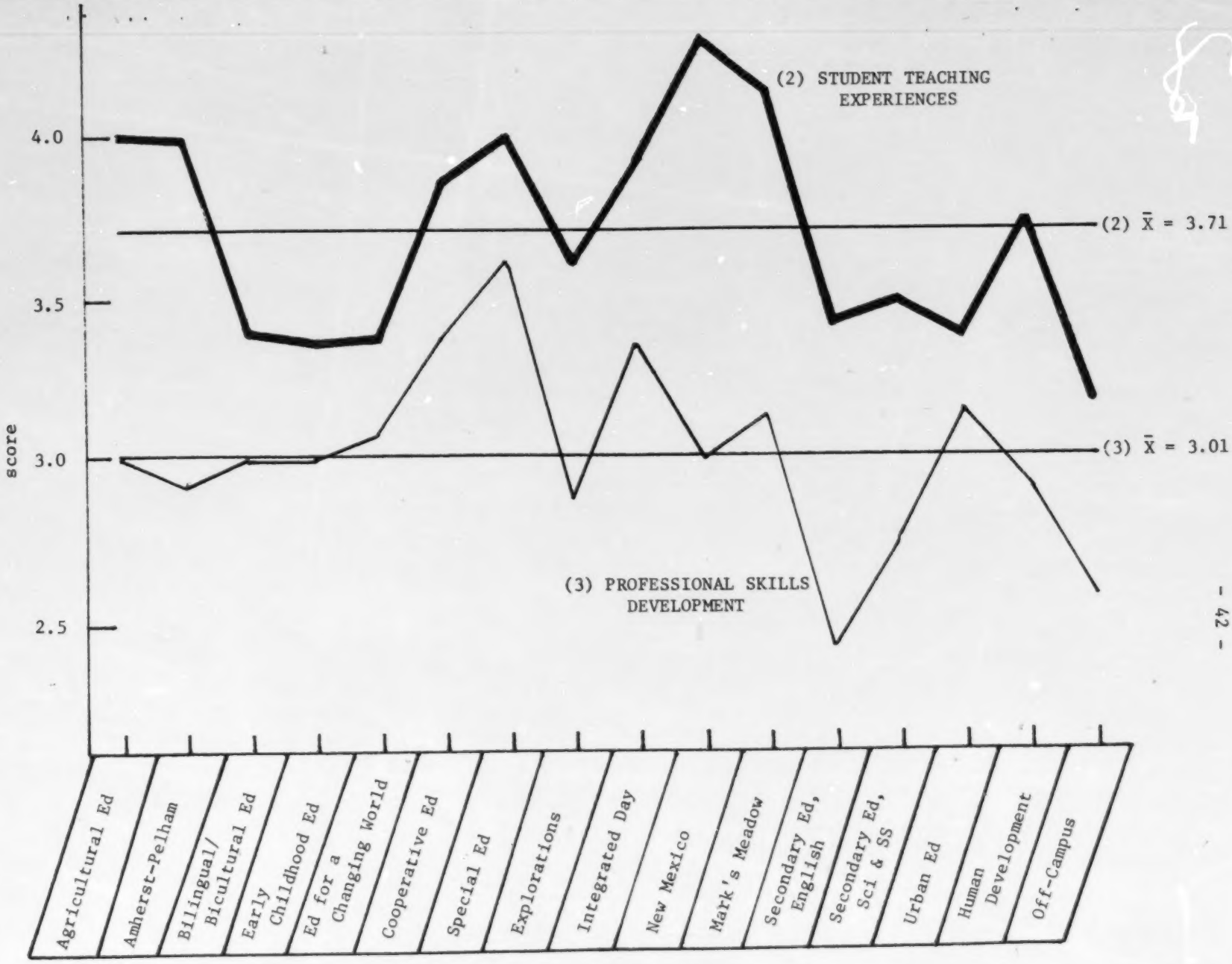
	var #	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	COLUMN A Program Totals		COLUMN B Program Totals	
	$\bar{x}$	3.99	4.01	3.60	3.56	3.52	3.46	3.40	2.83	3.72	3.04	2.95	3.99	3.67	3.69	3.80	+	-	H	L
	σ	.92	.90	1.10	1.10	1.10	1.06	1.10	1.14	1.20	1.20	1.18	.88	.98	.92	.92				
Program	N =	A B	A B	A B	A B	A B	A B	A B	A B	A B	A B	A B	A B	A B	A B	A B				
Agricultural Ed	7	H	H	L	L	L	- L	L	L	+ H	+ H	+ H	H	L	H	H	4	4	20	13
Amherst-Pelham	32	H	H	L	- L	- L	L	- L	L	H	L	L	H	H	H	H	0	3	20	13
Bilingual/Bicultural Ed	6	- L	H	+ H	+ H	+ H	H	L	L	L	L	L	H	H	H	H	4	2	18	15
Early Childhood Ed	8	H	H	H	H	H	+ H	L	- L	L	L	- L	H	L	L	L	3	2	17	16
Ed for a Changing World	14	L	H	H	+ H	+ H	L	+ H	L	H	+ H	L	H	H	H	H	5	2	24	9
Cooperative Ed	8	+ H	+ H	+ H	+ H	+ H	+ H	+ H	+ H	+ H	L	+ H	H	+ H	- L	+ H	20	2	29	4
Special Ed	23	H	H	H	L	H	L	L	L	H	H	+ H	H	H	H	H	6	2	25	8
Explorations	26	H	H	H	H	H	H	H	L	H	L	L	H	L	H	H	0	0	23	10
Integrated Day	25	+ H	+ H	H	H	H	H	H	L	H	L	L	+ H	+ H	H	+ H	10	0	30	3
New Mexico	7	H	H	+ H	+ H	+ H	+ H	L	L	H	- L	- L	H	+ H	+ H	H	9	3	24	9
Mark's Meadow	7	H	H	- L	- L	L	L	- L	L	H	L	+ L	+ H	H	H	H	6	3	18	15
Secondary Ed, English	12	H	H	- L	L	L	L	L	L	H	L	- L	L	- L	L	L	0	10	8	25
Secondary Ed, Sci & SS	8	H	H	- L	L	- L	- L	- L	L	- L	L	L	- L	- L	+ H	- L	1	15	12	21
Urban Ed	13	H	- H	+ H	H	H	L	L	L	L	L	L	- L	L	H	L	2	3	17	16
Human Development	37	H	H	L	L	L	H	L	L	L	L	L	H	H	H	H	0	0	20	13
Off-Campus	18	- L	- L	L	L	L	- L	L	L	- L	- L	L	H	H	H	- L	0	13	8	25
VARIABLES: Total low		3	1	7	8	7	9	12	15	6	14	12	3	6	3	5				
VARIABLES: Total high		13	15	9	8	9	7	4	1	10	2	3	13	10	13	11				
significance level		NS	.025	.005	.0001	.0001	.005	.0001	NS	.001	NS	.001	.0001	.0001	NS	.005				

Table 9



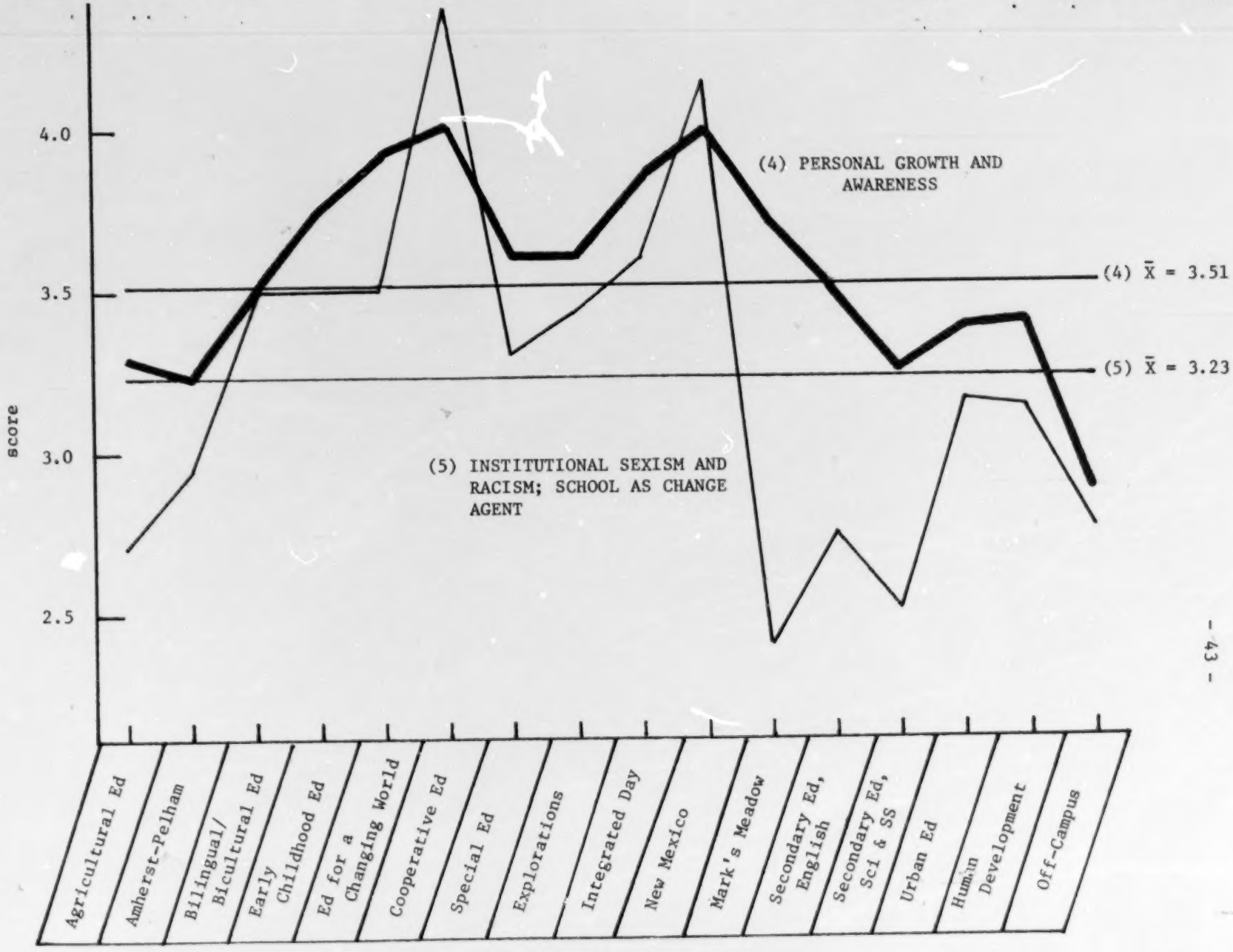
Scores on Dimension 1

Figure 4



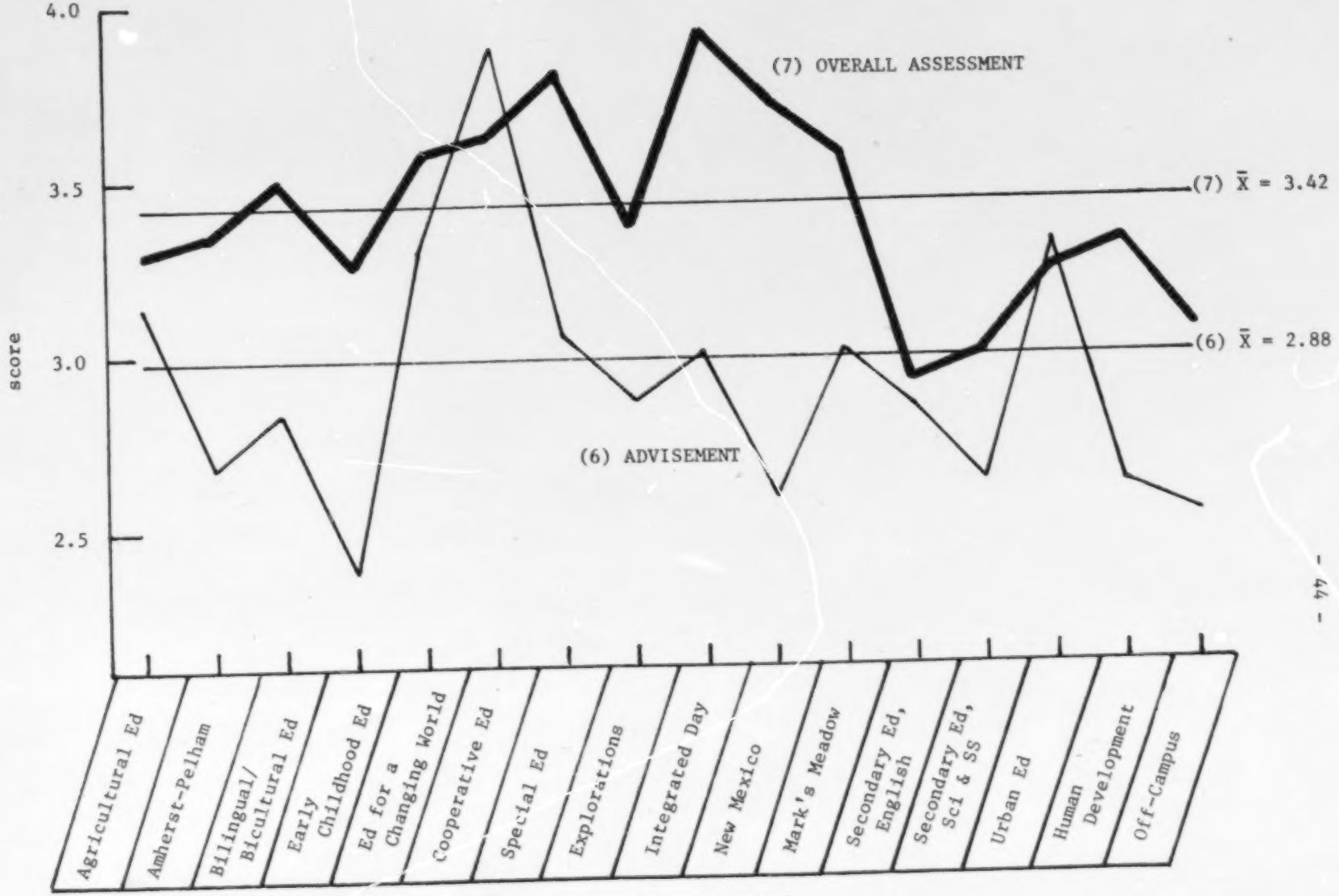
Scores on Dimensions 2 and 3

Figure 5



Scores on Dimensions 4 and 5

Figure 6



Scores on Dimensions 6 and 7

Figure 7

API-1

QUESTIONNAIRE FOR UMASS GRADUATES OF TEACHER PREPARATION PROGRAMS

Name _____ (NOTE: All responses are confidential; names are requested in the event a second mailing is necessary to obtain maximum results.)

1. Sex (1)73% female (2)27% male

2. Please circle the teacher preparation program in which you were enrolled:
(1) Agricultural Ed (2) Amherst-Pelham Elementary (3) Bilingual/Bicultural Ed (4) Early Childhood Ed (5) Education for a Changing World (includes Future Studies, Global Studies, and Environmental Ed) (6) Education for Community Service (7) Education Through Work (8) Explorations (9) Individual Student Learning Experience (10) Integrated Day (INTEP or METEP) (11) Human Services (12) Juvenile Justice (13) New Mexico: Cross-Cultural Ed (14) Secondary Ed, English (15) Secondary Ed, Math (16) Secondary Ed, Science and Social Studies (17) Urban Ed (CUETEP) (18) Alternative Schools (19) Anisa (20) Eleven-Plus (21) Media Specialists (22) Human Development (23) Off-Campus (England) (24) Perspectives (25) other (specify) _____

3. Your college major _____ Your degree (1)75% B.A. (2)25% B.S.

4. Certification status (1)___elementary (2)___secondary (name the field) _____ (3)___both elementary and secondary (4) specialist (name the area)_____ (5)___none

see text, p. 9

5. Present Employment Status (check the appropriate items)

see text, p. 11

(1)___full-time school teaching (2)___part-time school teaching or paraprofessional work (3)___working in an education field, but not directly teaching (4)___further formal study (5)___employed in another occupation area (6)___not employed nor in formal study

If you are teaching or employed in some type of education-related setting (such as a social agency, counselling, etc.), please answer questions 6 through 13.

6. Name of immediate employer (such as school principal)_____

Full address _____

(1)80% in Massachusetts (2)20% outside Massachusetts (where?)_____

7. Job setting (1)27% rural/village (2)38% suburban (3)33% urban

8. Type of institution (1)73% public (2)15% private (3)12% non-profit

9. Briefly describe your position _____

_____

10. Your annual salary (1)41% below $4,000 (2)22% $4,000-$7,500 (3)24% $7,500-$9,500 (4)7% $9,500-$10,500 (5)2% $10,500-$12,000 (6) over $12,000 (amount_____) 2%

11. In your search for a position, check any of the following sources that you used.

(1)___University Credential Service

(2)___Vacancy notices, Career library, Student Development Center

(3)___Campus Recruiting Program (interviews)

(4)___Career News

(5)___Departmental faculty/resources

(6)___Friends/contacts

(7)___Commercial Employment Agency

(8)___Relatives

(9)___Newspaper Ads/Professional Journals

(10)___Personal Mailing Campaign

(11)___Other (describe) _____

see text, p. 15 for response to questions 11 and 12

12. Position was actually obtained by/through _____

13. Degree of satisfaction with your position (1)5%very low (2)7%low (3)26%moderate (4)35%high (5)25%very high 2% no response

14. If you are not teaching or employed in an education-related setting, please check the appropriate response. see text, p. 13

(1)___I decided that I do not want to teach or be employed in an education-related setting.

(2)___I want to teach or be employed in an education-related setting, but I could not find a position.

(3)___I want to teach or be employed in an education-related setting, but I could not find a position I was willing to accept.

For the remainder of this questionnaire, please rate your experience in your teacher preparation program. Choose the appropriate rating from the following scale, and place it to the left of the question.

RATING SCALE

1 = very poor 2 = poor 3 = fair 4 = good 5 = excellent

6 = not part of program 7 = had none, but needed it

$\bar{X}$ =

THEORY AND METHODS COURSES

15. 3.43 Usefulness of methods modules (Potpourri).

16. 3.45 Usefulness of other methods courses.

17. 3.86 Quality of your educational psychology, child development, or similar course/training.

18. 3.62 Meaningful relationship of your educational psychology, child development, or similar course/training to the rest of your preparation program.

19. 3.09 Quality of your foundations of education course/training.

20. 3.00 Meaningful relationship of your foundations (philosophical, sociological, or historical) course/training to the rest of your preparation program.

USE THIS RATING SCALE

1 = very poor 2 = poor 3 = fair 4 = good 5 = excellent

6 = not part of program 7 = had none, but needed it

$\bar{X}$ = ***STUDENT TEACHING EXPERIENCE***

21. 4.64 Provisions for the length of time (hours, days, weeks) available to you for student teaching.

22. 4.32 Useful characteristics of the local school classroom to help provide learning for you during student teaching.

23. 4.21 Useful characteristics of the total local school situation to help provide learning for you during student teaching.

24. 4.21 Quality of explicit, useful help and criticism by the local cooperating teacher.

25. 3.42 Provisions for the quantity of supervision by UMass staff during student teaching.

26. 3.69 Quality of supervision by UMass staff during student teaching.

PROFESSIONAL SKILLS AND PERSONAL GROWTH

27. 3.23 Preparation in your program in the use of community resources for learning experiences (such as, museums, field trips, places of business, human service organizations).

28. 3.70 Preparation in diagnosing each learner's characteristics (attitudes, abilities, past experiences, goals) and incorporating these into teaching and learning.

29. 3.31 Preparation in diagnosing special learning disabilities and incorporating these into teaching and learning.

30. 3.66 Help in understanding and constructively using in teaching and learning, information about each learner's social, economic, ethnic, and cultural background.

31. 4.09 Opportunities for your decision-making in setting personal goals and choosing your own methods for reaching goals.

32. 3.70 Quality of useful knowledge in relevant academic disciplines (subject matter facts and theories).

33. 3.99 Quality of useful knowledge about interpersonal interactions (between teachers and learners; among learners; among staff).

34. 4.01 Quality of useful knowledge about your self (your attitudes, abilities, interests, goals, self-evaluation, self-concept).

35. 3.60 Efforts by your program to explore the relevance of institutional racism to teaching and learning.

36. 3.56 Quality of useful knowledge concerning cultural differences.

37. 3.5[illegible] Efforts by your program to explore personal awareness with respect to cross-cultural attitudes.

38. 3.46 Efforts by your program to explore the relevance of institutional sexism to teaching and learning.

39. 3.40 Efforts by your program to explore the role of schooling in the study of social, economic, and political change in a culture.

USE THIS RATING SCALE
1 = very poor 2 = poor 3 = fair 4 = good 5 = excellent
6 = not part of program 7 = had none, but needed it

$\bar{X}$ =

ADVISEMENT

40. 2.83 Help from the University and School of Education in learning about the various teacher preparation programs.

41. 3.72 Degree of support, personal help, and useful advise you had from the staff of your program concerning your specific preparation program.

42. 3.04 Degree of support, personal help, and useful advise you had concerning your general academic program.

43. 2.95 Provisions made during your program for discussing and facing the job market.

GENERAL

44. 3.99 Your agreement with the educational beliefs that were encouraged by your program.

45. 3.67 Meaningful interconnections among the various courses and components of your overall teacher preparation program.

46. 3.69 The quality and relevance of your undergraduate work (general education, academic major or minor), other than your teacher preparation program, to contribute to your teaching.

47. 3.80 The overall quality of your teacher preparation program.

OPEN-ENDED QUESTION

Please include any comments here that you feel might be useful to programs preparing teachers (discuss, for example, the relevance of your preparation program to your present job).

Appendix II

Placing graduates' employment in perspective

To determine how TEC preservice graduates fared in securing teaching jobs compared with other certified educators in the Commonwealth, a search was made for recent education employment data. Unfortunately, there are no published data available for 1976. However, a study was made three years ago by the Massachusetts Teachers Association of the availability of teaching positions and of certified educators desiring positions (Randall and Zollo, 1974). In that study, the authors cited the problem of the declining teaching market as "acute" and "serious" for newly certified teachers:

> "There are approximately 6,184 educators who became certified in 1973 who are seeking to fill an estimated 1,415 positions which will be added in the public schools during 1974-75. Of the 1,415 new positions, only about one-half are for classroom teachers. Therefore, it appears that there are about 4.3 certified teachers, specialists, and administrators for each available new position." (emphasis added) (p. 4)

More specifically, Randall and Zollo projected for 1974-75 that there would be about 10.5 new elementary-certified teachers per new position. These ratios could only be approximately estimated because of other inputs to the employment picture: retirements for 1974, educators from out-of-state seeking employment in Massachusetts, and certified graduates of the 1974 class.

Of the total amount (16,500) of educators who became certified during 1973, 10,780 (or 65 percent) were not employed in Massachusetts public schools during 1973-74. Of those 10,780, Randall and Zollo estimated (from a 10 percent random sample) that 25 percent were employed either as full-time educators outside Massachusetts or as professional educators and

teaching aides in private or parochial schools within Massachusetts. Thus, combining both in- and out-of-state employment, we find that about 8,500 (or 51 percent) of Massachusetts certified teachers gained employment as educators during 1973-74.

John Lambert (1977), Director of Research for the Massachusetts Teachers Association, recalled that during 1973-74 he received some 700-1200 listings from Association members for teaching positions, while this year he has received only 100 and does not anticipate any more than 200 listings. Thus, a rough, but conservative, change indicator for teaching openings in Massachusetts which pass Lambert's desk is the drop from 700 to 200 or about a 70 percent decline. He noted that except for special education teachers, highly specialized teachers, or administrators, the education job market in Massachusetts is a "depression industry."

Given the employment rate for 1973-74 (51 percent) and the Massachusetts Teacher's Association reported decline in receiving notice of job openings for 1977-78, the 1976 TEC graduates have a relatively high education employment rate (32 percent full-time and 20 percent part-time).

Yet another way to view teacher-certified individuals is to look at the record of their employment against that of graduates in other areas. In a paper presented at a round-table discussion at the American Educational Research Association in April, 1977, Leonard Bliss and Jon Dodds of the State University of New York at Potsdam (SUCP) showed that the two top reasons non-education students gave for not entering teacher preparation programs were (1) 75 percent did not want to be a teacher and (2) 56 percent felt the employment outlook was poor. However, the rates of employment for 1974-75 SUCP students who were certified were <u>higher</u> than for those who were not

certified! Indeed, Bliss and Dodds found that

> "... While employment opportunities are lower in education than at any time since World War II, they are better than in any of the liberal arts and non-liberal arts areas available at SUCP with the exception of Computer Science... If graduates of Computer Science were partialed out, students graduating with certification to teach have better than twice the chance of finding employment in the area of their choice than do graduates who do not have teacher certification." (emphasis added) (p. 2)

There is unfortunately no similar survey of University of Massachusetts graduates with which to compare SUCP's findings; however, the Student Affairs Research and Evaluation Office is planning to conduct a survey of 1977 graduates on their employment status (Benedict, 1977), and it will be most interesting to see whether SUCP's results apply also to UMass School of Education graduates. Perhaps the "grapevine" knowledge on education employment has been too negative.